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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/921,337	08/02/2001	Katsumi Hirata	FUJY 18.896	4989

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EXAMINER

PEARSON, YVETTE B

ART UNIT PAPER NUMBER

2144

DATE MAILED: 11/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	<p>Application No.</p> <p>09/921,337</p>	<p>Applicant(s)</p> <p>HIRATA, KATSUMI</p>	
	<p>Examiner</p> <p>Yvette Pearson</p>	<p>Art Unit</p> <p>2144</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08/02/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-19 are presented for examination in the application.

Acknowledgement is made of Information Disclosure document filed August 2, 2001.

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. **09/921337**, filed on August 2, 2001.

Objections

3. The title of the invention is not descriptive (Multicast System). A new title is required that is clearly indicative of the invention to which the claims are directed.

The following titles are suggested: Mechanism for Managing Multicast Groups; or Dynamic Multicasting utilizing Group Key Management.

4. Specification objected to because of the following informalities: Regarding the reference to 'the input devise 13' in Figure 2, (Column 7, Lines 20 and 26), correction should be made to these statements to reflect 'the input devise 3'. Appropriate correction is required.

5. Specification objected to because of the following informalities: Regarding noted paragraph lines, correction should be made to include spacing between wording to allow clear representation of statements (Col. 1, Lines 21 and 25; Col 8, Line 25; Col 10, Lines 16 and 23). Appropriate correction is required.

6. These are merely exemplary. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. Claims 1 - 19 are rejected under 35 U.S.C. 102(a) as being anticipated by Caronni et al. (US 6049878).

9. As per Claims 1, 5 and 16 Caronni teaches a sender computer system (client) whereby a central access control entity is used to handle group admission control and encryption, and coupled to a virtual multicast group through a multicast enabled traffic distribution network (a center system connected via a network [Figure 3, #302]), comprising a traffic distribution component user application (Figure 1 [includes network driver #112 and network interface #114]; Column 5, Lines 13 - 17); a destination module running on a receiver computer system that is coupled to a multicast enabled traffic distribution network including a traffic encryption/decryption component coupled to receive the decrypted data packets and generated data and providing receiver-side multicast services using the received data. (Column 5, Lines 22-31; Figure 3, #301).

Thus Caronni discloses all limitations of the rejected claims and therefore anticipates the subject matter of claims 1, 5 and 16.

10. As per Claims 2, 6 and 17, Caronni teaches a center multicast system comprising a Group Key Management component coupled to a traffic distribution component (Figure 1, #108) having a data structure for storing an ID for each participant in the virtual multicast group (Column 14, Lines 7-10) whereby operations are provided when the Participant Key Manager of the destination module (Figure 1, #109) receives the address of the multicast group via the Session Directory Component of the destination module (Figure 1, #111) and receives a heartbeat message from the Group Key Manager. The Participant Key Manager of the destination module establishes a private and authenticated connection with the Admission Control component (Figure 1, #110) to receive access (Column 4, Lines 53-57.)

In the embodiment shown in Figure 3, a central access control entity (#302) is used to handle group key management and admission control and encryption; the sender (#300) and receiver (#301) comprise symmetrical components and differ primarily in purpose but not functionality. In comparing the implementation shown in Figure 1 with the implementation shown in Figure 3, layers bearing similar designation include substantially similar functionality and construction to that described in reference to Figure 1 (Column 5, Lines 50-58.)

Thus Caronni discloses all limitations of the rejected claims and therefore anticipates the subject matter of claims 2, 6 and 17.

11. As per Claims 3, 7, 11 and 18, Caronni teaches a secure multicast system providing components within the client entity, that include a Group Key Management module that accepts participants (receivers) that are admitted by the Admission Control component (Figure 1, #110). Subsequently, the Participant Key Management component (Sender) (Figure 1, #109) receives information from the Group Key Management component and takes actions to obtain and maintain participant key records (Column 5, Lines 39-42.)

Thus Caronni discloses all limitations of the rejected claims and therefore anticipates the subject matter of claims 3, 7, 11 and 18.

12. As per Claims 4, 8, 12 and 19, Caronni teaches a multicast system comprising a grouping feature whereby group creation (range information) is accomplished when the Group Key Manager (Figure 1, #108) allocates a key management multicast group, and announces its public key parameters and access control contact address to the participant SDP component (Column 7, Lines 7-11; Figure 5.) The Participant Key Manager now establishes a private and authenticated connection with the Admission Control component (Sender) to receive access (Column 7, Lines 26-29.)

Thus Caronni discloses all limitations of the rejected claims and therefore anticipates the subject matter of claims 4, 8, 12 and 19.

13. As per Claim 9, Caronni teaches a multicast system comprising a data transfer module that includes header information and data packets used in the network

transmission of encrypted payloads to receiving participants. (Column 8, Lines 12-14; Figure 2, #200.)

Caronni also teaches that the receiving participants are generally joined into groups (Column 6, Lines 40-44). Group creation is accomplished when the Group Key Manager module allocates a key management multicast group, and announces its public key parameters and access control contact address to participants (Column 7, Lines 7-10.)

Caronni also teaches a Receiver Multicast Application (Figure 1, #103) coupled to the Transport component (Figure 1, #105) to receive the application data and provide receiver-side multicast services using the received application data. (Column 13, Lines 41-44.)

Thus Caronni discloses all limitations of the rejected claim and therefore anticipates the subject matter of claim 9.

14. As per Claim 10, Caronni teaches a central access control entity that utilizes a Group Key Manager module (Figure 1, #108) that is aware of all currently active recipients as identified from the session description information (i.e., IP address, keying material, and some identification) from the recipients (Column 5, Lines 66-67 and Column 6, Lines 1-2.)

Thus Caronni discloses all limitations of the rejected claim and therefore anticipates the subject matter of claim 10.

15. As per Claim 13, Caronni teaches a multicast system comprising a Traffic Decryption component (Figure 1, #107) coupled to receive encrypted data packets (data files), from the Traffic Distribution component and decrypt the received data packets (Column 13, Lines 34-37).

Thus Caronni discloses all limitations of the rejected claim and therefore anticipates the subject matter of claim 13.

16. As per Claim 14, Caronni teaches a multicast system comprising a Traffic Decryption component (Figure 1, # 107) that actually sends data (Column 4, Lines 66-67.) Traffic encryption can be performed using any available encryption algorithm or combination of algorithms to include block stream messages, and the like (Column 5, Lines 5-12.)

Thus Caronni discloses all limitations of the rejected claim and therefore anticipates the subject matter of claim 14.

17. As per Claim 15, Caronni teaches a multicast system via a satellite link comprising a Traffic Distribution component (Figure 1 [includes network drivers #112 and #113, network interfaces #114 and #115, and a communication network]), supporting a connectionless datagram protocol coupled to the sending entity and each of the receiving entities (Column 11, Lines 11-13.)

Thus Caronni discloses all limitations of the rejected claim and therefore anticipates the subject matter of claim 15.


Conclusion

18. The prior arts made of record and not relied upon are considered pertinent to applicant's disclosure. Bayrakeri (US 6185602) and Butman et al(US6026430.)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvette Pearson whose telephone number is (571) 272-4227. The examiner can normally be reached on 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Cuchlinski can be reached on (571) 272-3925. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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